

5/4/2018

Print



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

| PO No | Supplier | Line Item No | Rel No | Terms | Purchased Item | Description | For Part No | Project | Equipment ID | Order Qty | Due Date | Received Quantity | Accounting Job No | Container No | Status | Receive Date | Price/Unit |
|----------|-----------|--------------|--------|--------|----------------------|---|-------------|---------|--------------|-----------|----------|-------------------|-------------------|--------------|--------|--------------|---------------|
| PO039779 | THY001-VC | 1 | 1 | Net 30 | M6061T6R1.125 | 6061 Round Bar 1.125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | | | | 12 | 5/9/2018 | 12 | | S068498 | Stock | 5/4/2018 | \$ 3.28 / ft |
| | | 2 | | | M6061T6A4.000W.250 | 6061T6 Angle 4.00 X 4.00 X .250 : MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE AS PER AMS-QQ-A-200/8 receive ft | | | | 20 | | 20 | | S068499 | Stock | 5/4/2018 | \$ 6.04 / ft |
| | | 3 | | | M6061T6B0.500X04.500 | 6061T6 Bar 0.500 X 4.500 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | | | | 24 | | 24 | | S068500 | Stock | 5/4/2018 | \$ 6.95 / ft |
| | | 4 | | | M6061T6B0.750X01.000 | 6061-T6 Bar .750 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | | | | | | 24 | | S068501 | Stock | 5/4/2018 | \$ 2.49 / ft |
| | | 5 | | | M6061T6B0.750X00.125 | 6061-T6 Bar .750 X .125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | | | | 40 | | 80 | | S068502 | Stock | 5/4/2018 | \$ 3.25 / ft |
| | | 6 | | | M304R1.750 | 304 Round Bar 1.750 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft | | | | 12 | | 12 | | S068503 | Stock | 5/4/2018 | \$ 22.15 / ft |
| Total: | | | | | | | | | | 132 | | 172 | | | | | |

Plex 5/4/2018 10:03 AM Dart.Dubois.Pascal



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039779**

Supplier: THY001-VC
Thyssenkrupp Materials CA Ltd
O/A VPK Metal- c/o T27540
PO Box 4275, Postal"A"
Toronto
ON
M5W 5V8 Canada
Phone: 905 669 9444
Fax: 905 738 9033

PO No: PO039779

PO Date: 5/2/18

Due Date: 5/9/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
MAY 02 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments: quote no. 1203098041

Items

| Line Item | Part | Supplier Part No | Description | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|----------------------|------------------|--|--------|----------|----------------|-------------------|---------|------------------|----------------|
| 1 | M6061T6R1.125 | | 6061 Round Bar 1.125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 5/9/18 | 12 ft | 0 ft | 12 ft | \$3.28/ft | \$39.36 |
| 2 | M6061T6A4.000W.250 | | 6061T6 Angle 4.00 X 4.00 X .250 : MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE AS PER AMS-QQ-A-200/8 receive ft | Firmed | 5/9/18 | 20 ft | 0 ft | 20 ft | \$6.04/ft | \$120.80 |
| 3 | M6061T6B0.500X04.500 | | 6061T6 Bar 0.500 X 4.500 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 5/9/18 | 24 ft | 0 ft | 24 ft | \$6.95/ft | \$166.80 |

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MAY 04 2018

DAS
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9-89

MAY 04 2018

| Items | | | | | | | | | | |
|--------------|----------------------|------------------|---|--------|----------|----------------|-------------------|---------|------------------|----------------|
| Line Item | Part | Supplier Part No | Description | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
| 4 | M6061T6B0.750X01.000 | | 6061-T6 Bar .750 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 5/9/18 | 24 ft | 0 ft | 24 ft | \$2.49/ft | \$59.76 |
| 5 | M6061T6B0.750X00.125 | | 6061-T6 Bar .750 X .125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 5/9/18 | 40 ft | 0 ft | 40 ft | \$3.25/ft | \$130.00 |
| 6 | M304R1.750 | | 304 Round Bar 1.750 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft | Firmed | 5/9/18 | 12 ft | 0 ft | 12 ft | \$22.15/ft | \$265.80 |
| Grand Total: | | | | | | | | | | \$782.52 |

Order Notes

Procurement Quality Clauses

A005 right of entry
 A012 chemical and physical test report
 A016 personnel qualification
 A017 raw material identification (as applicable)
 A026 certification of material conformance
 A041 quality management system
 A042 dart notification by supplier
 A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 5/2/18 1:50 PM dart.lavoie.chantal

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 05/04/2018
DOC. NO: 2405940913*
BOL. NO: 2405940913
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTA

**MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.**

ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

| ITEM | DESCRIPTION | NET QTY1 / QTY2 | PACKAG |
|--------------------|---|-----------------|----------------------------|
| 0010 | SSRD11496 T-304L Stainless Steel Round 1.7500 " X 144 Mill Length Actual Chemistry/Act. Physical Standard Packaging | 1 | 1008569993 PC 103 lb |
| TAGNUM | QTY | UOMVEND | VENDPO |
| 2001350466 | 1 | PC FIDELITY | 0000283688 |
| HLOT | PCS | --- | COM |
| CH-4346 | 1 | | |
| Total Gross Weight | | | 105.000 lb |

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée./ thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.

*Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le fournisseur du matériel où les données résultent de l'analyse faite par un laboratoire qualifié/ We certify that the document reproduced here is true to the report provided by the equipment supplier where the data are the result of analysis by a qualified laboratory.

David Noordine - Director of Quality Assurance



thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7



DATE: 05/04/2018
DOC. NO: 2405940914*
BOL. NO: 2405940914
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTR

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

| ITEM | DESCRIPTION | NET QTY1 / QTY2 | PACKAG |
|--------------------------------|--|-----------------|------------|
| 0010 | ALREC00778 | 4 | 1008569740 |
| | 6061 T6511 Aluminum Extruded Rectangular | PC | |
| | 0.12500 (+-.007) X 0.7500 (+-.010) X 240 Mill Length | 10 | |
| | Nominal Chemistry/Act Physical | lb | |
| | Standard Packaging | | |
| TAGNUM | QTY | UOMVEND | VENDPO |
| 2001350428 | 4 | PC | CAN ART A |
| ROHS COMPLIANT;ASTM B 221 2014 | | | 0000286896 |
| | | | 3B6959 |
| | | PCS --- COM | |
| | | 4 | |

Total Gross Weight 12.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée./ thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.

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David Noordine - Director of Quality Assurance

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 05/04/2018
DOC. NO: 2405940915*
BOL. NO: 2405940915
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTR

**MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.**

ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

| ITEM | DESCRIPTION | NET QTY1 / QTY2 | PACKAG |
|--------------------------------|--|-----------------|------------|
| 0010 | ALREC00857 | 2 | 1008569995 |
| | 6061 T6511 Aluminum Extruded Rectangular | PC | |
| | 0.75000 (+-.010) X 1.0000 (+-.012) X 144 Mill Length | 22 | |
| | Nominal Chemistry/Act Physical | lb | |
| | Standard Packaging | | |
| TAGNUM | QTY | UOMVEND | VENDPO |
| 2001350467 | 2 | PC SERVICE C | 5400392539 |
| ROHS COMPLIANT;ASTM B 221 2014 | | | |



Total Gross Weight 24.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance





DELIVERY NOTE

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6



DATE: 05/04/2018
 DOC. NO: 2405940912*
 BOL. NO: 2405940912
 ORDER NO: 1403630272
 YOUR P/O: 39779
 CUSTOMER NO: 10058125
 Route: 303UA
 CONTACT: Stan Ivers
 TEL: 905-532-1350 ext 21350
 FAX: 905-738-9033 ext 9033
 EMAIL: STAN.IVERS@THYSSENKRUP
 P.COM

DART AEROSPACE LTD
 1270 ABERDEEN ST
 HAWKESBURY ON K6A 1K7

MTR

**MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
 WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
 TO SHIPPING.**

ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER ****
**** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

| ITEM | DESCRIPTION | NET QTY1 / QTY2 | PACKAG |
|--------------------------------|--|-----------------|------------|
| 0010 | ALREC00548 | | 1008569991 |
| | 6061 T6511 Aluminum Extruded Rectangular | 2 PC | |
| | 0.50000 (+-.009) X 4.5000 (+-.034) X 144 Mill Length | 63 | |
| | Nominal Chemistry/Act Physical | lb | |
| | Standard Packaging | | |
| TAGNUM | QTY | UOMVEND | VENDPO |
| 2001350465 | 2 | PC | SERVICE C |
| ROHS COMPLIANT;ASTM B 221 2014 | | | 5400379605 |
| | | | HLOT |
| | | | 201721131 |
| | | PCS | --- |
| | | 2 | COM |

Total Gross Weight

65.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance



thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 05/04/2018
DOC. NO: 2405940911*
BOL. NO: 2405940911
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

MTR

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

| ITEM | DESCRIPTION | NET QTY1 / QTY2 | PACKAG |
|------------|---|-----------------|------------|
| 0010 | ALANG39172 | 1 | 1008569735 |
| | 6061 T6511 Aluminum Angle | PC | |
| | Extruded Canadian Standard | 47 | |
| | 4.0000 X 4.0000 X 0.25000 X 240.0000 " Mill Length 240 IN | lb | |
| | Nominal Chemistry/Act Physical | | |
| | Standard Packaging | | |
| TAGNUM | QTY | UOMVEND | VENDPO |
| 2001350427 | 1 | PC EXTRUDEX | 5400392708 |
| | | HLOT | 39113 |
| | | PCS | 1 |
| | | COM | |

Total Gross Weight 61.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

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thyssenkrupp Materials NA



thyssenkrupp

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

MTR

DATE: 05/04/2018
DOC. NO: 2405940910*
BOL. NO: 2405940910
ORDER NO: 1403630272
YOUR P/O: 39779
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUP
P.COM

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ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

| ITEM | DESCRIPTION | NET QTY1 / QTY2 | PACKAG |
|--------------------------------|-------------------------------------|-----------------|------------|
| 0010 | ALRD00329 | | 1008569989 |
| | 6061 T6511 Aluminum Extruded Round | 1 PC | |
| | 1.1250 (+-.006) X 144 " Mill Length | 14 | |
| | Nominal Chemistry/Act Physical | lb | |
| | Standard Packaging | | |
| TAGNUM | QTY | UOMVEND | VENDPO |
| 2001350463 | 1 | PC | ----- |
| ROHS COMPLIANT;ASTM B 221 2014 | | | |

HLOT 201706499 PCS --- COM 1

Total Gross Weight 28.000 lb

All items, not declared as partial delivery, are final quantities.

Delivery Terms: PPD gem. Incoterms 2000 Prepaid TRANSFER TRUCK

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 A4 0004 .250
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/3068499

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20'
 QUANTITY INSPECTED: 20'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .250
 THICKNESS RECEIVED: .250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|---|--------------------|-----|------------------|
| SURFACE DAMAGE | Y | (N) | |
| CORRECT FINISH | (Y) | N | |
| CORROSION | Y | (N) | |
| CORRECT GRAIN DIRECTION | (Y) | N | |
| CORRECT MATERIAL PER M-DRAWING | (Y) | N | Ams QQA 200/8 |
| CORRECT THICKNESS | (Y) | N | |
| PHOTO REQUIRED | Y | (N) | |
| CORRECT REF # TO LINK CERT | (Y) | N | Heat Lot # 39113 |
| CORRECT MATERIAL IDENTIFICATION | (Y) | N | |
| CORRECT M# ON THE MATERIAL | (Y) | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| | | | |
|-------------------------------|----------------------|-----------------------------------|--|
| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
| INSPECTED BY: <u>DAS</u> | SIGNED OFF BY: _____ | | |
| DATE: <u>9-89 MAY 04 2018</u> | DATE: _____ | | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/H610T6S11 ALUMINUM ANGLE
PER AMS-QQ-A-200/8

PART NUMBER: M6061T6A- HHH.XLWWWW

WHERE HHH = HEIGHT
WWW = THICKNESS

HEIGHT THICKNESS

E.G. 0.75" X 0.75" X 0.125" = M6061T6A750XW125

08.03.17 MJD

| | | | |
|---|--------------------------------|---------------|----------|
| B | PART NUMBER CALL OUT REMITTEN. | AJS | 08.03.06 |
| A | NEW ISSUE | MB | 08.02.14 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | AJS | | |
| DRAWN | AJS | | |
| CHECKED | UE | | |
| MFG. APPR. | UE | | |
| APPROVED | UE | | |
| DE APPR | UE | | |
| DATE | 08.03.06 | | |
| DART AEROSPACE LTD | | REV. B | |
| HAWKESBURY, ONTARIO, CANADA | | SHEET 1 OF 1 | |
| DRAWING NO. M6061T6A | | SCALE | |
| TITLE | | 6061-T6 ANGLE | |
| DATE | | 08.03.06 | |
| NTS | | NTS | |
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TEL: (416) 745-4444 FAX: (416) 745-0925 1-800-668-7210
411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4

<http://www.extrudex.com>

MILL TEST

| | | | | | |
|---|------------------------------------|------------------------------------|---------------------------------|----------------------------------|------------------------|
| BILL TO THYSSENKRUPP MATERIALS, NA | CERT CODE: 9 | DIE NUMBER S 22440 | DATE OF SHIPMENT Apr/09/2018 | EXTRUDEX ORDER NO. 216067 - 4 | MANIFEST NO. 388927 |
| SHIP TO THYSSENKRUPP MATERIALS, NA | CUSTOMER PO 5400392708-C1A | ALLOY 6061 | TEMPER T6511 | SALESMAN PETER BASHMAKOV | |
| SO DESCRIPTION 4"x.250" RF AN | CUSTOMER PART NUMBER ALANG39172 | PART DESCRIPTION 4"x.250" RF AN | | | |
| CERTIFICATION ASTM B221-14 - AMS QQA 200/8 | | | | MADE IN CANADA | |

Mechanical Properties

| Lot | Alloy | Test Date | Ultimate Tensile Strength (KSI) | Yield Strength (KSI) | Percent Elongation | Hardness Rockwell F | Conductivity |
|------|-------|-------------|---------------------------------|----------------------|--------------------|---------------------|--------------|
| A.11 | 6061 | Jan/18/2018 | 42.80 | 40.50 | 16.20 | 86.5, 86.8, 87.2 | |

Chemical Composition

| Cast Number | Lot | Alloy | Si | Fe | Cu | Mn | Mg | Cr | Ni | Zn | Ti | Ga | V | B | Zr | Bi | Pb | Sn | Sr | Co | Al | Other |
|-------------|------|-------|-------|-------|-------|--------|-------|--------|----|--------|--------|----|---|---|----|----|----|----|----|----|----|-------|
| 39113 | A.11 | 6061 | 0.575 | 0.237 | 0.199 | 0.0791 | 0.832 | 0.0653 | 0 | 0.0174 | 0.0192 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.

T. Mohabir

Tulsiaram Mohabir
Quality Control Manager

1 - CUSTOMER COPY

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 47 LB

Del.: 2405940911

CstOr 39779

Date 05/03/2018

Thomas Sanchez

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6B0.500X04.500
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/8068500

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 24'
 QUANTITY INSPECTED: 24'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500
 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|-----------------------|-----|----------------------|
| SURFACE DAMAGE | Y | (N) | |
| CORRECT FINISH | (Y) | N | |
| CORROSION | Y | (N) | |
| CORRECT GRAIN DIRECTION | (Y) | N | |
| CORRECT MATERIAL PER M-DRAWING | (Y) | N | AMS-QQA-20018 |
| CORRECT THICKNESS | (Y) | N | |
| PHOTO REQUIRED | Y | (N) | |
| CORRECT REF # TO LINK CERT | (Y) | N | H2A L OFF 2017 21131 |
| CORRECT MATERIAL IDENTIFICATION | (Y) | N | |
| CORRECT M# ON THE MATERIAL | (Y) | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| | | | |
|-------------------------------|----------------------|-----------------------------------|--|
| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
| INSPECTED BY: <u>DAS</u> | SIGNED OFF BY: _____ | | |
| DATE: <u>9-89 MAY 04 2018</u> | DATE: _____ | | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: ~~QQ-A-225/8~~ OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ~~ASTM-B211~~ OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-08-03
MD

| | | | |
|--|---|--------------|----------|
| B | REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZNDT-1) | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | DS | | |
| DRAWN | DS | | |
| CHECKED | DS | | |
| MFG. APPR. | DS | | |
| APPROVED | DS | | |
| DE APPR. | DS | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M6061T6B | | REV. B | |
| TITLE 6061-T6 BAR | | SHEET 1 OF 1 | |
| SCALE NTS | | | |
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Service Center Metals

5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



| | |
|------------------|------|
| OUR ORDER NUMBER | ITEM |
| 938724 | 1 |

DATE OF SHIPMENT

1/10/2018

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A

SPECIFICATION

RoHS-2011/65/EU Compliant

DIE NUMBER

RB0456

ALLOY / TEMPER

6061-T6511

DESCRIPTION

SCRB .500 X 4.500

SALESPERSON

D. Schroeder (Canada)

MANIFEST NUMBER

354652

CUSTOMER PO

5400379605

CUSTOMER PART NUMBER

ALREC00548

SHIP TO

ThyssenKrupp Materials NA

ThyssenKrupp Materials NA-Concord, ON

Quantity Certified

1,016 lbs

32 pcs

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DPAARS compliant.

Mechanical Properties

Tests Lot No.

2 2017221131

1/7/18

Test Date

Ultimate Tensile Strength (KSI)

Yield Strength (KSI)

Percent Elongation

min 41.20 max 41.30 min 36.20 max 36.90 min 23.30 max 24.40

Chemical Composition for Aluminum Alloy 6061

| Cast# | Lot No. | Alloy | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Al | Each | Others Total | Melt Source: |
|-------------|------------|-------|------|------|------|------|------|------|------|------|-------|------|--------------|--------------------------|
| 002J171116B | 2017221131 | 6061 | 0.62 | 0.25 | 0.19 | 0.07 | 0.86 | 0.07 | 0.03 | 0.02 | 97.88 | 0.05 | 0.15 | United States of America |
| 002J171117B | 2017221131 | 6061 | 0.62 | 0.27 | 0.20 | 0.06 | 0.86 | 0.07 | 0.04 | 0.03 | 97.86 | 0.05 | 0.15 | United States of America |

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 1/10/2018

Rev 7/2017

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 63 LB

Del.: 2405940912

CstOr 39779

Date 05/03/2018

Tomas Sanchez

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6B0.750x01.000

PO / BATCH NO.: 039779/8068501

DATE: MAY 04 2018

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: 0.750

QUANTITY RECEIVED: 24'

THICKNESS RECEIVED: 0.750

QUANTITY INSPECTED: 24'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|-----------------------|----------------------|
| SURFACE DAMAGE | Y (N) | |
| CORRECT FINISH | (Y) N | |
| CORROSION | Y (N) | |
| CORRECT GRAIN DIRECTION | (Y) N | |
| CORRECT MATERIAL PER M-DRAWING | (Y) N | QQ-A-200/8 |
| CORRECT THICKNESS | (Y) N | |
| PHOTO REQUIRED | Y (N) | |
| CORRECT REF # TO LINK CERT | (Y) N | Heat Lot # 201805575 |
| CORRECT MATERIAL IDENTIFICATION | (Y) N | |
| CORRECT M# ON THE MATERIAL | (Y) N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| | |
|--|-------------------------------------|
| QC 18 INSPECTION | ENGINEERING SIGNOFF (if required) |
| INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 MAY 04 2018</u> | SIGNED OFF BY: _____ DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B T.TTT X WWW.WWW
THICK WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-09-03
MD

| | | | |
|--|--|----|----------|
| B | REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZN D7-1) | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | DS | | |
| DRAWN | AS | | |
| CHECKED | AS | | |
| MFG. APPR. | M6061T6B | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. REV. B | | | |
| M6061T6B SHEET 1 OF 1 | | | |
| TITLE SCALE | | | |
| 6061-T6 BAR NTS | | | |
| DATE 09.07.13 | | | |
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Service Center Metals

5850 Quality Way
Prince George, VA 23875

Can Do.

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



BILL TO

Thyssenkrupp Materials NA

MANIFEST NUMBER

362132

SHIP TO

Thyssenkrupp Materials NA-Concord, ON

CUSTOMER PO

5400392539

Quantity Certified

2,288 lbs 216 pcs

CUSTOMER PART NUMBER

ALREC00857

DIE NUMBER

RB0111

DATE OF SHIPMENT

3/26/2018

SALESPERSON

D. Schroeder (Canada)

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A obsolete SPECIFICATION

RoHS 2011/65/EU Compliant

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DFARS compliant

Mechanical Properties

Tests Lot No.

8 201805575

| Test Date | Ultimate Tensile Strength (KSI) | Yield Strength (KSI) | Percent Elongation |
|-----------|---------------------------------|----------------------|---------------------|
| 3/22/18 | min 47.50 max 51.20 | min 44.30 max 48.20 | min 16.10 max 20.00 |

Chemical Composition for Aluminum Alloy 6061

| Cast # | Lot No. | Alloy | Si | Fe | Cu | Mn | Mg | Cr | Zn | II | Al | Each | Others | Total | Melt Source: |
|-------------|-----------|-------|------|------|------|------|------|------|------|------|-------|------|--------|-------|--------------------------|
| 001J171104A | 201805575 | 6061 | 0.74 | 0.38 | 0.32 | 0.11 | 0.90 | 0.11 | 0.07 | 0.03 | 97.34 | 0.05 | 0.15 | | United States of America |

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Rev 3/14/2018

Print Date: 3/26/2018

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 22 LB

Del.: 2405940915

CstOr 39779

Date 05/03/2018

Thomas Sanchez

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 B0.750x0.125
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/5068502

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 30
 QUANTITY INSPECTED: 30
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.125
 THICKNESS RECEIVED: 0.125
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|---|---------------------------------------|---------------------------------------|----------------------------|
| SURFACE DAMAGE | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT FINISH | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORROSION | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT GRAIN DIRECTION | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | <u>Aston B221</u> |
| CORRECT THICKNESS | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| PHOTO REQUIRED | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT REF # TO LINK CERT | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | <u>Heat # Lot # 3B6959</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | ENGINEERING SIGNOFF (if required) |
|--|-------------------------------------|
| INSPECTED BY: <u>DAS 11</u> DATE: <u>9-05 MAY 04 2018</u> | SIGNED OFF BY: _____ DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B21

PART NUMBER:

M6061T6B | T.TTT | X | WW.WWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-09-03

| | | | |
|--|---|--------------|----------|
| B | REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZND7-1) | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | DS | | |
| DRAWN | DS | | |
| CHECKED | DS | | |
| MFG. APPR. | DS | | |
| APPROVED | DS | | |
| DE APPR. | DS | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | REV. B | |
| DRAWING NO. M6061T6B | | SHEET 1 OF 1 | |
| TITLE 6061-T6 BAR | | SCALE NTS | |
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PO/Rel

BL PEC-000000-000

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: _____ Pg 1/1

Attn:

PART NO.

CAN ART
ALUMINUM EXTRUSION L.P.

Material Test Report

Manifest: **331639**

Ship To: ThyssenKrupp Materials NA
2821 Langstaff Road
Concord, ON L4K 5C6

Ticket:
5565436

Our Order: **440234 - 1**

Cust P.O.: 286896

Die: ES05485

Part: 05485-000-240

Alloy Temper: 6061 T6511

Description: .125 x .750

Print Date: 10/23/17

Chemical Composition Range

| 6061 | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | OtherEach | OtherTotal |
|------|------|-----|------|------|-----|------|------|------|-----------|------------|
| Min | 0.40 | | 0.15 | | 0.8 | 0.04 | | | | |
| Max | 0.8 | 0.7 | 0.40 | 0.15 | 1.2 | 0.35 | 0.25 | 0.15 | 0.05 | 0.15 |

Mechanical Properties

Strength ksi

| Sample ID | Cast # | Lot # | Test Date | Ultimate Tensile | Yield 2% offset | Elongation 2" gage length |
|-----------|--------|-------|-----------|------------------|-----------------|---------------------------|
| 428886 | 3B6959 | A11 | 10/22/17 | 43.21 | 40.14 | 9.2 |

Applicable Specifications: **ASTMB221-14** AMS-QQ-A200/8A

Country of Origin: 85 Parkshore Drive, Brampton, Ontario CANADA L6T 5M1

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.


Evan Eng, Quality Assurance Manager

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R1.750
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/5068503

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.750
 THICKNESS RECEIVED: 1.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|---|--------------------|-----|------------------|
| SURFACE DAMAGE | Y | (N) | |
| CORRECT FINISH | (Y) | N | |
| CORROSION | Y | (N) | |
| CORRECT GRAIN DIRECTION | (Y) | N | |
| CORRECT MATERIAL PER M-DRAWING | (Y) | N | Astm A276 |
| CORRECT THICKNESS | (Y) | N | |
| PHOTO REQUIRED | Y | (N) | |
| CORRECT REF # TO LINK CERT | (Y) | N | Heatlot# CH-4346 |
| CORRECT MATERIAL IDENTIFICATION | (X) | N | |
| CORRECT M# ON THE MATERIAL | (Y) | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | ENGINEERING SIGNOFF (if required) |
|--|-------------------------------------|
| INSPECTED BY: <u>DAS 11</u> DATE: <u>9-29 MAY 04 2018</u> | SIGNED OFF BY: _____ DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR
(NOTE: AISI 303 NOT ACCEPTABLE)

SPECIFICATION:

ASTM A276

PART NUMBER:

M304R0.750

DIA.

WHERE "D.DDD" = DIAMETER IN INCHES
EG. 0.75" ROUND BAR = M304R0.750

RELEASED
CT 12/25/14

| | | | |
|---|------------------------------------|-----|----------|
| B | REFORMAT DWG. ADD SPECS (ZN D6-1). | CP | 09.07.15 |
| A | NEW ISSUE | AJS | 08.03.03 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | AJS | | |
| DRAWN | g | | |
| CHECKED | g | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.15 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. REV. B | | | |
| M304R | | | |
| SHEET 1 OF 1 | | | |
| TITLE SCALE | | | |
| 304/316 ROUND BAR | | | |
| NTS | | | |
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PO/Rel

BL PEC-000000-000

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: _____ Pg 1/1

Attn:

PART NO.



CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2008 CERTIFICATE No. 04 100 211032

ADM. OFFICE: 304, SURESH BHAWAN, N. B. PATIL MARG, MUMBAI 400 027, INDIA

Tel.: 91-22-66290600. Fax: 91-22-66290633/34

Website : www.chandansteel.net

Email : cs@chandansteel.net

L/c. No.:

L/c. Date:

WORKS: Plot No. 35, G. I. D. C., Umbergaon

Dist Valsad, Gujarat - 396 171.

Tel.: 91-260-308 9999 Fax: 91-260 308 9872

E-mail : exports@chandansteel.net

F824 QC 09A / 02 / 10.12.2012

MILL TEST / INSPECTION CERTIFICATE 3.1 ACCORDING TO EN 10204 : 2005

| | | | | | | | | | | | |
|--|---|-----------------------------|--|--|---------------------------|---|---|-----------|------|------|--------|
| FIDELITY PAC METALS LTD. 1303 NORTH SERVICE ROAD EAST, UNIT # 1 OAKVILLE, ON L6H 1A7. CANADA | | | | | | Test Certificate No. : EXP/00322 - 19/2016-2017 Date of Issue : 04.07.2016 P. O. No. : P004712 SC_No. & Date : 15-16/00924, Dt. 13.04.2016 Invoice No. & Date : EXP/00322/2016-17 Dt.04.07.2016 | | | | | |
| PRODUCT DESCRIPTION STAINLESS STEEL ROUND BARS | | | | | | LENGTH | | Net Wt. | | | |
| | | | | | | Ordered 12' - 12'6" | Actual 12' - 12'6" | 1118 LBS. | | | |
| Heat No. CH-4346 | Grade AISI/DIN 304/304L 1.4301/1.4307 UNS#S30400/S30403 | Size mm/inches 1-3/4" | Tolerance h9 | Process Route Electric Melting, A.O.D. Refining, Continuous Casting. | | | | | | | |
| CHEMICAL COMPOSITION (Weight %) | | | | | | | | | | | |
| | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | Co | N |
| Min. | - | - | - | - | - | 18.00 | - | 8.00 | - | - | - |
| Max. | 0.030 | 1.00 | 2.00 | 0.045 | 0.030 | 20.00 | 1.00 | 10.50 | 1.00 | - | 0.1000 |
| Results | 0.025 | 0.43 | 1.64 | 0.040 | 0.020 | 18.06 | 0.32 | 8.04 | 0.38 | 0.10 | 0.0700 |
| MECHANICAL PROPERTIES | | | | | | | | | | | |
| Specified Values | Test Method :- EN ISO 6892-1 | | | | | Hardness EN ISO 6506-1 (BHN) | Test Method :- Charpy 'V' Notch Impact | | | | |
| | Proof Strength N/mm ² /MPa | | Tensile Strength N/mm ² /MPa (Rm) | Elongation after Fracture A % | Reduction of Area % | | Tested (2mm) as per DIN EN ISO 148 - 1 | | | | |
| | 0.2% (Rp0.2) | 1% (Rp1.0) | | | | | Sample Size - Test Temp. :- 20 °C (Joules) | | | | |
| Results | 338 | 381 | 648 | 52 | 72 | 195-198 | N.A. | N.A. | N.A. | N.A. | |
| Remarks: | | | | | | | | | | | |
| 1. Smooth Turned and Polished | | | | | | | | | | | |
| 2. Solution annealed at 1050 °C. | | | | | | | | | | | |
| 3. PMI test done 100% & found Satisfactory. | | | | | | | | | | | |
| 4. Material is free from radio-active contamination. | | | | | | | | | | | |
| 5. Material is free from mercury contamination. | | | | | | | | | | | |
| 6. Both ends Chamfered. | | | | | | | | | | | |
| 7. Inter-Granular Corrosion Test as per ASTM A262 - 15 (Pr.E) satisfactory. | | | | | | | | | | | |
| 8. No welding or weld repairs were performed on this material while in our possession. | | | | | | | | | | | |
| 9. Micro structure reveals- equiaxed grains of Austenite & free from carbide Precipitation. | | | | | | | | | | | |
| 10. Grain size - No. 6-7 of ASTM as per E112-96. | | | | | | | | | | | |
| 11. Material is Ultrasonically Tested as per ASTM A388 & found satisfactory. | | | | | | | | | | | |
| 12. The material hardness is in accordance with NACE MR 0175-2009 and NACE MR 0103-2012. | | | | | | | | | | | |
| 13. The material Conforms to ASTM A276-15, ASTM A182/ A182M-15, ASME SA 182/ SA 182M-13, ASTM A479/ A479M-15, ASME SA479/ SA-479M-15, ASTM A193/ A193M-12b B8 - CL1, ASME SA193/ SA193M-13 B8 - CL1, ASTM A320/ A320M-11 B8 CL1, ASME SA320/ SA 320M-10 B8 CL1, AMS-QQ-S-763E COND A, AMS - 5639H, AMS - 5647H, EN 10088-3 : 2014 & DIN EN 10272-2008 Specification. | | | | | | | | | | | |
| 14. Location of sample - Off centre, Direction - Longitudinal, Test Temp - Room Temp., Shape of Test Piece - Round. | | | | | | | | | | | |
| 15. Marking details - Company Logo, Size, Grade & Heat No. | | | | | | | | | | | |
| 16. The material is manufactured / melt in Chandan Steel Mill and is of Indian Origin. | | | | | | | | | | | |
| BUNDLE NO.: 75 | | | | | | COLOUR : RED | | | | | |

It is hereby certified that the above results are true and correct in every details and are meeting the requirements of specification & purchase order.

B. S. RAUTELA
MANAGER - QUALITY ASSURANCE



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6R1.125
 DATE: MAY 04 2018

PO / BATCH NO.: 039779/5068498

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.125
 THICKNESS RECEIVED: 1.125
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|---|--------------------|-----|-----------------------------|
| SURFACE DAMAGE | Y | (N) | |
| CORRECT FINISH | (Y) | N | |
| CORROSION | Y | (N) | |
| CORRECT GRAIN DIRECTION | (Y) | N | |
| CORRECT MATERIAL PER M-DRAWING | (Y) | N | <u>AMS-QQ-A-200/8</u> |
| CORRECT THICKNESS | (Y) | N | |
| PHOTO REQUIRED | Y | (N) | |
| CORRECT REF # TO LINK CERT | (Y) | N | <u>Heat Lot # 201706499</u> |
| CORRECT MATERIAL IDENTIFICATION | (Y) | N | |
| CORRECT M# ON THE MATERIAL | (Y) | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | ENGINEERING SIGNOFF (if required) |
|---------------------------------------|-----------------------------------|
| INSPECTED BY: <u>DAS</u> <u>11</u> | SIGNED OFF BY: _____ |
| DATE: <u>9-89 MAY 04 2018</u> | DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-225/B OR AMS-QQ-A-225/B (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R(D,DDD)

| DIA. |

WHERE "D,DDD" = DIAMETER IN INCHES

EG. 5/8" ROUND BAR = M6061T6R0.625

RELEASED
R 2009-08-09
MSP

| | | | |
|---|---|--------------|----------|
| B | REFORMAT DWG. ADD B211& B221 SPEC (ZN D6-1), REF PAR 08-020A | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DRAWN | <i>[Signature]</i> | | |
| CHECKED | <i>[Signature]</i> | | |
| MFG APPR. | <i>[Signature]</i> | | |
| APPROVED | <i>[Signature]</i> | | |
| DE APPR. | <i>[Signature]</i> | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | REV. B | |
| DRAWING NO. M6061T6R | | SHEET 1 OF 1 | |
| TITLE | | SCALE | |
| 6061-T6 ROUND BAR | | NTS | |
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Service Center Metals

5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



| | |
|------------------|------|
| OUR ORDER NUMBER | ITEM |
| 921655 | 20 |

| | | | |
|---|-----------------------------------|---|---|
| BILL TO Copper & Brass Sales, Inc. | MANIFEST NUMBER 333947 | DIE NUMBER RD0006 | DATE OF SHIPMENT 5/26/2017 |
| SHIP TO Copper & Brass Sales, Inc. | CUSTOMER PO 5400353007 | ALLOY / TEMPER 6061-T6511 | SALESPERSON Ellis Williams |
| Quantity Certified 4,040 lbs 288 pcs | CUSTOMER PART NUMBER ALRD00329 | DESCRIPTION Lightning Rod Tite 1.125 + .006/- .004 | SPECIFICATION ASTM-B221-14 StencilCont AMS-QQA-200/8 Rev-A RoHS 2011/65/EU Compliant |

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6. This product is RoHS-2, REACH, and DfARS compliant.

Mechanical Properties

| Tests | Lot No. | Test Date | Ultimate Tensile Strength (KSI) | Yield Strength (KSI) | Percent Elongation |
|-------|-----------|-----------|---------------------------------|----------------------|-------------------------|
| 12 | 201706499 | 4/24/17 | min 49.90 max 52.70 | min 47.30 max 49.90 | min 11.40 max 14.80 |
| 11 | 201707341 | 5/10/17 | 46.80 | 48.20 | 43.10 44.90 18.90 21.30 |

Chemical Composition for Aluminum Alloy 6061

| <u>Cast #</u> | <u>Lot No.</u> | <u>Alloy</u> | <u>Si</u> | <u>Fe</u> | <u>Cu</u> | <u>Mn</u> | <u>Mg</u> | <u>Cr</u> | <u>Zn</u> | <u>Ti</u> | <u>Al</u> | <u>Others</u> | | <u>Melt Source:</u> |
|---------------|----------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|--------------|---------------------------------|
| | | | | | | | | | | | | <u>Each</u> | <u>Total</u> | |
| 001E170505A | 201707341 | 6061 | 0.75 | 0.39 | 0.33 | 0.10 | 0.90 | 0.10 | 0.06 | 0.03 | 97.34 | 0.05 | 0.15 | <i>United States of America</i> |
| 001J170415D | 201707341 | 6061 | 0.72 | 0.37 | 0.32 | 0.09 | 0.88 | 0.10 | 0.08 | 0.03 | 97.40 | 0.05 | 0.15 | <i>United States of America</i> |
| 03191704 | 201706499 | 6061 | 0.76 | 0.40 | 0.35 | 0.11 | 0.86 | 0.08 | 0.09 | 0.02 | 97.33 | 0.05 | 0.15 | <i>United States of America</i> |
| 04271704 | 201707341 | 6061 | 0.73 | 0.37 | 0.30 | 0.10 | 0.87 | 0.08 | 0.06 | 0.03 | 97.46 | 0.05 | 0.15 | <i>United States of America</i> |